



**CITY OF MESA, ARIZONA**

**PROJECT NAME**

**CONSTRUCTION MANAGER AT RISK  
PRE-CONSTRUCTION SERVICES  
CONTRACT**

**PROJECT NO. \_\_\_\_\_**

**TABLE OF CONTENTS**

<b><u>ARTICLE</u></b>	<b><u>PAGE</u></b>
1 – PARTICIPANTS AND PROJECT .....	3
2 – CONTRACT DOCUMENTS .....	4
3 – PRE-CONSTRUCTION SERVICES .....	4
4 – CONSTRUCTION SERVICES .....	6
5 – CITY FURNISHED INFORMATION .....	6
6 – CONTRACT TIME .....	6
7 – CONTRACT PRICE .....	7
8 – PAYMENTS .....	7
9 – CHANGES TO THE CONTRACT .....	7
10 – SUSPENSION AND TERMINATION .....	7
11 – INSURANCE .....	7
12 – INDEMNIFICATION .....	7
13 – DISPUTE RESOLUTION .....	7
14 – MISCELLANEOUS PROVISIONS .....	7

**EXHIBIT**

- A – PRE-CONSTRUCTION SERVICES SCOPE OF WORK AND SCHEDULE (\_\_\_ PAGES)
- B – INSURANCE REQUIREMENTS (4 PAGES)
- C – COMPLIANCE WITH SPECIFIC GOVERNMENT PROVISIONS (\_\_\_ PAGES)
- D – SUBMITTAL REQUIREMENTS FOR GMP PROPOSAL (2 PAGES)



## **ARTICLE 2 – CONTRACT DOCUMENTS**

### **2.1 CONTRACT DOCUMENTS**

The Contract between City and CMAR shall consist of the following Contract Documents:

1. This Contract;
2. General Conditions, dated \_\_\_\_\_, and General Conditions Appendices, incorporated by reference;\*
3. Exhibit A – Pre-Construction Scope of Work and Schedule – attached;
4. Exhibit B – Insurance Requirements – attached;
5. Exhibit C – Government Provisions Compliance – attached;
6. Exhibit D – Submittal Requirements for GMP/Price Proposal – attached;
7. Attachment A – CMAR GMP Summary; and
8. The Statement of Qualifications (SOQ) submitted by CMAR.

\* <http://mesaaz.gov/business/engineering/engineering-contracts>

### **2.2 DEFINITIONS**

The definitions in Sections 2 and 15.1 of the General Conditions apply to all the Contract Documents, including this Contract. Additional definitions or defined terms applicable to all the Contract Documents for this Project, if any, as set forth below:

**(If any, to be added by PM)**

## **ARTICLE 3 – PRE-CONSTRUCTION SERVICES**

### **3.1 SERVICES**

CMAR shall provide all of the services and perform in accordance with Section 17 of the General Conditions. The major components of Pre-Construction services and the corresponding subsections of Section 3 of the General Conditions are set forth below.

### **3.2 GENERAL REQUIREMENTS**

- 3.2.1 CMAR shall perform the services required by, and in accordance with this Contract and as outlined in the attached Exhibit A to the satisfaction of the Project Manager, in full compliance with Section 17.2.1 of the General Conditions.
- 3.2.2 In performance of the Services under this Contract, the CMAR shall fully comply with all applicable Laws, Regulations, or Legal Requirements applicable to City, the Project and the Contract, including, without limitations those set forth on the attached Exhibit C.
- 3.2.3 CMAR shall perform the Services under this Contract using only those firms, team members and individuals designated by CMAR consistent with the Statement of Qualifications dated \_\_\_\_\_, 20\_\_\_\_, or as otherwise approved by City in accordance with the General Conditions. No other entities or individuals may be used without the prior written approval of the Project Manager.
- 3.2.4 CMAR will comply with all terms and conditions of the General Conditions.
- 3.2.5 In the event of a conflict between this Contract and the General Conditions or any exhibit hereto or appendix thereto, the terms of this Contract shall control.
- 3.2.6 **Ownership of Work Product.** Notwithstanding anything to the contrary in this Contract, all Work Product prepared or otherwise created in connection with the performance of this Contract, including the Work, are to be and remain the property of City, as set forth in Section 17.2.6 of the General Conditions.

**3.3 DESIGN PROJECT SCHEDULE**

CMAR shall prepare and present to City a Detailed Project Schedule that is acceptable to the City and in accordance with Section 17.3 of the General Conditions.

**3.4 DESIGN DOCUMENT REVIEW**

CMAR shall conduct the evaluations, perform the design document reviews, make the recommendations and provide the other Services referenced and in accordance with Section 17.4 of the General Conditions.

**3.5 BASELINE COST MODEL, DETAILED COST ESTIMATES AND SCHEDULE OF VALUES**

3.5.1 CMAR shall prepare and submit the Baseline Cost Model, Detailed Cost Estimates and Schedule of Values in accordance with Section 17.5 of the General Conditions.

3.5.2 The submitted Baseline Cost Model, Detailed Cost Estimates and Schedule of Values shall not exceed the City's Construction Budget, which is \$\_\_\_\_\_. If CMAR submits a Baseline Cost Model, Detailed Cost Estimates, and Schedule of Values that exceeds the Construction Budget, negotiations could lead to termination or suspension of the Contract.

**3.6 SUBCONTRACTOR AND MAJOR SUPPLIER SELECTIONS**

CMAR shall select and obtain approval of Subcontractors and Suppliers in accordance with Section 17.6 of the General Conditions.

**3.7 GUARANTEED MAXIMUM PRICE (GMP) PROPOSAL**

3.7.1 CMAR shall submit a GMP Proposal for the entire Work, and for each phase (if required) of the Work, at the times set forth in the Pre-Construction Schedule included in attached

Exhibit A. The GMP Proposal shall be presented in a format acceptable to City based upon the attached Exhibit D. City may change the schedule, format, and/or requirements for the GMP Proposal as it deems necessary during Pre-Construction, and may request resubmittal of the GMP Proposal to reflect such changes.

3.7.2 Preparation, submittal, review, and approve (or disapproval, if applicable) of the GMP Proposal shall be done in accordance with Section 17.7 of the General Conditions.

3.7.3 For the purpose of the GMP Proposal, the parties agree that:

1. The CMAR Fee shall be equal to \_\_\_\_\_% (percent) of the Direct Costs;
2. General Conditions costs shall be a fixed amount or percentage agreed to as part of the Baseline Cost Model.

3.7.4 The GMP Proposal shall not exceed the City's budget for the construction of the Project, which is \$\_\_\_\_\_ ("Construction Budget").

**3.8 ADDITIONAL PRE-CONSTRUCTION SERVICES**

3.8.1 Additional services which are outside the scope of the services required under the Contract Documents shall not be performed by CMAR without prior written authorization from City. Additional services, when authorized by an executed written Change Order under Section 9 of the General Conditions, shall be compensated for by a fee mutually agreed upon in such written Change Order between City and CMAR.

3.8.2 No claim for additional services, extra work done or materials furnished by CMAR shall be allowed by City except as provided herein, nor shall CMAR provide any additional services, do any work, or furnish any material(s) not covered by this Contract unless such work or material is first

authorized in writing by the Project Manager. Work or material(s) furnished by CMAR without such prior written authorization shall be CMAR's sole jeopardy, cost, and expense, and CMAR hereby agrees that without prior written authorization no claim for compensation for such services, work or materials furnished shall be made, and City shall not be responsible for such costs.

- 3.8.3 No Work (as defined by Section 1 of the General Conditions) may be performed under this Pre-Construction Services Contract, without prior written approval by the City. As an example, all procurement of long lead time items that must be procured to support the construction schedule or site investigative Work necessary to complete Pre-Construction Services, if done by the CMAR, will be performed only after a GMP Proposal for the Work has been approved and accepted in writing by City and all such Work shall be done only under an executed Contract for Construction Services, or pursuant to a prior written direction from City to engage in such procurement.

#### **ARTICLE 4 – CONSTRUCTION SERVICES**

If City accepts CMAR's GMP Proposal, CMAR and City will enter a Construction Services Contract for Construction of the Project based upon CMAR's Pre-Construction Services performed and GMP Proposal submitted pursuant to this Contract. The terms of the Construction Services Contract are being negotiated contemporaneously with this Contract and CMAR agrees to execute the Construction Services Contract, without further modification, upon acceptance by City of the GMP Proposal. All of CMAR's obligations, duties and warranties in relation to Pre-Construction Services and Deliverables (including specifically the GMP Proposal) survive the completion of this Contract and will be incorporated into the Construction Services Contract.

#### **ARTICLE 5 – CITY FURNISHED INFORMATION**

- 5.1 City, at no cost to CMAR, will furnish the following to CMAR:
- 5.1.1 One copy of data in City's possession or control which City determines in its discretion to be pertinent to the Work. However, CMAR shall be responsible for searching the records and requesting information it deems reasonably required for the Project.
- 5.1.2 Electronic copies of programs, reports, drawings, and specifications reasonably required by CMAR, to the extent in the possession of City.
- 5.1.3 Additional information to be provided by City, if any, is listed below:

**(To be completed by PM)**

#### **ARTICLE 6 – CONTRACT TIME**

Contract Duration is \_\_\_\_\_ Calendar Days.

The Pre-Construction Services described in this Contract shall be performed by CMAR in accordance with the Pre-Construction Schedule set forth in attached Exhibit A, as updated and expanded in the most current updated/revised and approved Detailed Project Schedule. Failure on the part of CMAR to adhere to the Pre-Construction Schedule requirements for activities for which it is responsible and in control will be deemed a material breach and sufficient grounds for termination for cause of this Contract by City.

#### **ARTICLE 7 – CONTRACT PRICE**

- 7.1 In exchange for CMAR's full, timely and acceptable performance of the Services under this Contract, and subject to all of the terms of this Contract, City will pay CMAR a fee of \$\_\_\_\_\_ (the "Contract Price"). The method of payment for this contract is Hourly, Not-to Exceed. The amount paid shall not exceed \$\_\_\_\_\_ for actual costs incurred, based on the negotiated hourly rates and reimbursement schedule as defined in Exhibit A, Scope of Services.

- 7.2** The Contract Price is all-inclusive, and City shall not pay any additional amounts, costs or expense, except for only those specifically designated reimbursable costs, without markup, as set forth in Exhibit A.

#### **ARTICLE 8 – PAYMENTS**

The Contract Price shall be paid based upon the completion of tasks comprising the Pre-Construction Scope of Work as shown in Exhibit A in accordance with Section 17.8 of the General Conditions.

#### **ARTICLE 9 – CHANGES TO THE CONTRACT**

Changes to the Contract may be made in strict accordance with Section 9 of the General Conditions.

#### **ARTICLE 10 – SUSPENSION AND TERMINATION**

This Contract may be suspended and/or terminated in accordance with Section 10 of the General Conditions.

#### **ARTICLE 11 – INSURANCE**

- 11.1** CMAR shall provide insurance as provided on the attached Exhibit B, and in accordance with Section 11.1 of the General Conditions.
- 11.2** CMAR shall provide proof of such insurance and all required endorsements in forms acceptable to City prior to commencing any Work or providing any Services under this Contract.
- 11.3** Failure to provide proof of insurance and the required endorsements acceptable to City will be a material breach and grounds for termination for cause of this Contract by City.

#### **ARTICLE 12 – INDEMNIFICATION**

CMAR shall have and assume the indemnity obligations set forth in Section 12 of the General Conditions.

#### **ARTICLE 13 – DISPUTE RESOLUTION**

Any claims or disputes relating to this Contract shall be resolved according to the dispute resolution process set forth in Section 13 of, and Appendix 8 to, the General Conditions.

#### **ARTICLE 14 – MISCELLANEOUS PROVISIONS**

The miscellaneous provisions set forth in Section 14 of the General Conditions shall apply to this Contract.

**“CITY”**  
**CITY OF MESA**

Page 8 of 8



## **EXHIBIT A – PRE-CONSTRUCTION SERVICES SCOPE OF WORK AND SCHEDULE**

(      PAGES)

### **NOTE – To be completed by PM.**

All terms and conditions are set forth in the Contract. Any terms and conditions and/or exceptions noted in the Contractor's/Design Professional's proposal, GMP, or other documents do not apply unless agreed to in this Contract or an approved addendum.

#### **Section A.1: Scope**

#### **Section A.2: Cost Proposal/Table – Do not include assumptions, exceptions, or exclusions.**

#### **Section A.3: Schedule**

## **EXHIBIT B – INSURANCE REQUIREMENTS**

### **(4 PAGES, INCLUDING THIS PAGE) MINIMUM INSURANCE REQUIREMENTS**

**Some of the following requirements apply to only design professionals and some apply only to contractors. Requirements will be enforced based on the type of contract.**

Contractor/Design Professional shall obtain and submit to City before any Work is performed, certificates from the Contractor's/Design Professional's insurance carriers indicating the presence of coverages and limits of liability as follows.

The City only accepts the most recent version of ACORD® Certificate of Liability Insurance form with additional insured endorsements. The Builder's Risk policy (if required) and the Owners and Contractors Protective Liability (OCP) policy shall remain in effect during construction through the date of project Final Acceptance. The remainder of the insurance policies shall remain in effect during construction and through the one-year warranty period that follows project Final Acceptance, unless otherwise specified in contract documents. Proof of all required coverage(s) shall be provided by the Contractor/Design Professional.

Policy forms must include:

- A. Premises and Operations coverage with no explosion, collapse or underground damage (XCU) exclusions;
- B. Products and Completed Operations coverage. Contractor/Design Professional agrees to maintain this coverage for a minimum of 10 years following completion of the Contractor/Design Professional Work and to continue to name City as an Additional Insured for the entire 10-year period;
- C. Blanket contractual coverage for the indemnity/hold harmless agreements assumed in this Subcontract and in the Prime Contract. Any Employee Exclusion will be deleted;
- D. Broad Form Property Damage coverage, including completed operations or its equivalent;
- E. An endorsement in a form acceptable to the City, naming City, any other party required to be named as an additional insured under the Contract Documents, and any other parties in interest as Additional Insured(s) under the coverage specified under Comprehensive General Liability or Commercial General Liability. Any form that does not grant additional insured status for both the ongoing operations and products/completed operations coverages **IS NOT ACCEPTABLE**;
- F. An endorsement in a form acceptable to the City, stating: "Such coverage as is afforded by this policy for the benefit of the additional insured(s) is primary and except for any builder's risk property insurance coverage that may be purchased and maintained by City in connection with the Project, any other coverage maintained by such additional insured(s) shall be non-contributing with the coverage provided under this policy;"
- G. Coverage SHALL BE on an "Occurrence" form. **"Claims Made" and "Modified Occurrence"** forms are not acceptable;
- H. Coverage to include general aggregate limits on a "per project" basis;

#### **1. Workers' Compensation (required for both Contractors/Design Professionals):**

Coverage A. Statutory Benefits

Coverage B. Employer's Liability

Bodily Injury by accident	\$1,000,000 each accident
Bodily Injury by disease	\$1,000,000 policy limit
Bodily Injury by disease	\$1,000,000 each employee



**2. Commercial Auto Coverage (required for both Contractors and Design Professionals):**

Auto Liability limits of not less than \$1,000,000 Combined Single Limit (Each Accident), combined Bodily Injury and Property Damage Liability insurance. Certificate to reflect coverage for "Any Auto, All Owned, Scheduled, Hired, or Non-Owned."

If the Contract Documents require Contractor/Design Professional to remove and haul hazardous waste from the Project site, or if the Project involves such similar environmental exposure, pollution liability coverage equivalent to that provided under the ISO Pollution Liability-Broadened Coverage for Covered Autos Endorsement shall be provided, and the Motor Carrier Act Endorsement (MCS 90) shall be attached.

**3. Commercial General Liability (required for both Contractors/Design Professionals):**

Each Occurrence Limit	\$1,000,000
Personal Injury/Advertising Injury Limit	\$1,000,000
Products/Completed Operations Aggregate Limit	\$1,000,000
General Aggregate Limit (other than Products/Completed Operations)	\$2,000,000

**4. Excess Liability:**

Umbrella or Excess Liability may be used to satisfy the above Auto and General Liability coverage requirements and limits to reach a total combined limit of:

Auto	Amount sufficient to cover difference in limits when compared to minimum coverage required.
Each Occurrence	Amount sufficient to cover difference in limits when compared to minimum coverage required.
Aggregate	Amount sufficient to cover difference in limits when compared to minimum coverage required.

**5. Professional Liability (required for Design Professionals only):**

(Applicable only to Design Professional services which are part of Work.)

Coverage provided must have no exclusion for design-build projects. Contractor/Design Professional must provide evidence of coverage for three (3) years beyond completion of the Project.

Coverage Amount: \$1,000,000 per claim/\$2,000,000 aggregate, unless higher coverage limits are required under the Contract Documents, in which case such higher limits shall apply.

**6. Pollution Legal Liability:** \$1,000,000 per Occurrence  
\$1,000,000 Aggregate Limit

(Applicable to any pollutants or hazardous waste exposures as part of Work, except for CMAR Pre-Construction services work.)

Contractor shall maintain insurance covering losses caused by pollution conditions (including mold) that arise from the Work.

**7. Builders Risk (if required, will be required for Contractors only):**

Contractor shall include in its Cost Proposal the cost to obtain builders risk or "all risk" or equivalent policy form coverage in the amount of the initial Contract Price. This required insurance coverage is required on projects that are typically outside the public rights-of-way whereby the City is constructing or modifying a public building. The City may, at the City's sole option, purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builders risk "all-risk" or equivalent policy form in the amount of the initial Contract Price, plus value of subsequent contract modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis. This insurance shall include interests of the City, Contractor and its subcontractors in the Project, and shall include, without limitation, insurance against the perils of fire and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal, including demolition occasioned by enforcement of any applicable legal requirements. City shall bear the responsibility for the deductible for such coverage when a loss affects the Work, provided, however, to the extent such loss is attributable to the negligent or wrongful acts or omissions of Contractor or someone for whom Contractor is responsible, Contractor shall bear the responsibility of the deductible. Such property insurance will not cover any tools or equipment owned or rented by Contractor that will not be incorporated into the Project, including trailers, excavators, scaffoldings, or forms. Contractor is responsible for providing insurance coverage for such items.

**8. Owners and Contractors Liability Policy (OCP) (required for Contractors only):**

Owners and Contractors Liability Policy: Prior to the execution of the Contract the Contractor shall provide a separate policy of insurance in the amount of \$2,000,000, per occurrence, at its sole cost and expense, naming the City of Mesa, a Municipal Corporation and all its agents, representatives, officers, directors, officials and employees as the insured. The Policy shall be primary and not contributory to any insurance maintained by the City of Mesa and shall remain in effect through date of Final Acceptance.

**9. Other Requirements:**

- A. All policies must be written by insurance companies whose rating, in the most recent AM Best's Rating Guide, is not less than A-. All coverage forms must be acceptable to City.
- B. ACORD® Certificate of Liability Insurance form with the required endorsements evidencing the required coverages must be PROVIDED to the City prior to commencement of any Work. Failure of City to demand such certificate or other evidence of full compliance with these insurance requirements or failure of City to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor's/Design Professional's obligation to maintain such insurance. City shall have the right, but not the obligation, to prohibit Contractor/Design Professional or any of its subcontractors from entering the Project site until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by City.
- C. The policies shall provide waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay for the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged. The following policies shall include Waiver of Subrogation endorsements:



Workers' Compensation  
Commercial Auto Coverage  
Commercial General Liability  
Pollution Legal Liability

- D. The following policies shall include Additional Insured endorsements:  
Commercial Auto Coverage  
Commercial General Liability  
Excess Liability  
Builders Risk
- E. Contractor/Design Professional shall be responsible for satisfying any deductible or self-insured retention with respect to any of the coverages required by the Contract Documents to be provided by Contractor/Design Professional.
- F. City reserves the right, in its sole discretion, to require higher limits of liability coverage if, in City's opinion, operations by or on behalf of Contractor/Design Professional create higher than normal hazards and, to require Contractor/Design Professional to name additional parties in interest to be Additional Insureds.
- G. In the event that rental of equipment is undertaken by Contractor/Design Professional or any Subcontractor to complete and/or perform the Work, Contractor/Design Professional agrees that it shall be solely responsible for such rental equipment. Such responsibility shall include, but not be limited to protection against theft, fire, vandalism and use by unauthorized persons.
- H. In the event that materials or any other type of personal property ("personal property") is acquired for the Project or delivered to the Project site, Contractor/Design Professional agrees that it shall be solely responsible for such property until it becomes a fixture on the Project, or otherwise is installed and incorporated as a final part of the Project. Such responsibility shall include, but not be limited to protection against theft, fire, vandalism and use by unauthorized persons.
- I. If City elects to utilize an Owner Controlled Insurance Program ("OCIP") which provides coverage for the Work, the Contractor/Design Professional shall comply with all provisions of any such OCIP.
- J. Any additional provisions specific to the Project are attached. In the event of any conflict between the attached terms and the terms of this Exhibit, Contractor/Design Professional shall comply with the more stringent provisions.

If a policy does expire, a renewal certificate of the required coverage shall be sent to the City of Mesa not less than seven (7) calendar days prior to the expiration date or, if a policy is to be cancelled, changed or not renewed, a proper notice of such action shall be sent to the City not less than fourteen (14) calendar days prior to any such action by the insurance company.

Notice shall be sent to: City Engineer                      or  
City of Mesa  
P.O. Box 1466  
Mesa, AZ 85211-1466

Fax to 480-644-3392  
Attention: City Engineer

**EXHIBIT C – COMPLIANCE WITH SPECIFIC GOVERNMENT PROVISIONS**

( \_\_\_ PAGES)

**NOTE TO PROJECT MANAGER & CONTRACT SERVICES SPECIALIST –**

**The City must comply with specific government provisions. These provisions must be reviewed and approved by the Contract Services Specialist (CSS). In addition, the CSS is to confirm funding for this project.**

## **EXHIBIT D – SUBMITTAL REQUIREMENTS FOR GMP PROPOSAL**

(2 PAGES)

**NOTE: CSS to attach CMAR GMP Summary (spreadsheet CMAR to use for calculations.)**

1. Unless otherwise instructed, CMAR shall submit three (3) bound copies of any GMP Proposal(s) that includes the following documents, complies with the requirements specified in this Contract and the following instructions. The GMP Proposal(s) shall be organized as follows:
  - A. Table of Contents
  - B. Project Description
  - C. GMP Proposal and the following attachments:
    1. Detailed Cost Estimate upon which the GMP is based and if for phased work, a total project Detailed Cost Estimate as of the time of the phased GMP Proposal.
    2. List of Subcontractors
    3. Schedule of Manufacturers and Suppliers
  - D. Schedule of Values ("SOV")
  - E. Project Schedule and a variance report to the Baseline Project Schedule
  - F. Construction phasing/traffic control (if applicable)
  - G. List of GMP Plans and Specifications
2. A summary breakdown of the GMP Proposal is shown on page 2 of this Exhibit, along with instructions regarding certain line items. The definitions included in Section 1 of the General Conditions apply to the line items, as appropriate, and set-forth the criteria to be used by CMAR in providing the requested breakdown.
3. The most current version of CMAR's SOV shall be submitted with the GMP Proposal. Supporting documents for the SOV, including the request for bids, copies of bids received and clarification assumptions used for the particular bid item listed must be provided in an organized manner that correlates with the SOV.
4. The final accepted GMP shall not include any clarifications/assumptions made by CMAR in the preparation of the GMP Proposal, unless any such clarification or assumption is agreed to in writing by City.
5. The most current version of CMAR's Detailed Project Schedule shall be submitted with the GMP Proposal with a variance report from the project's Baseline Schedule. The Detailed Project Schedule shall be prepared as specified in this Contract.
6. A table listing all drawing sheets included in the GMP Plans and Specification shall be included with the GMP package. The table shall include the following information: Sheet Number, Sheet Name, Sheet Version, and Date of Issuance. The GMP Proposal and Specifications, as defined, shall be transmitted as specified in this Contract.

NOTE: The submittal package must be kept as simple as possible all on 8 ½ x 11 sheets. Color or shading must be kept to a minimum. If used, make sure the color or shading will not affect the reproduction of the submittal in black and white.